Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (currently amended) A method for validating engine and motor velocities in a vehicle having a plurality of vehicle components, including an engine and a first motor arranged in a vehicle architecture such that at least one known mathematical relationship exists between the engine velocity and the velocity of the first motor, the engine and the first motor each being operable to output torque and at least the engine being operable to output torque to at least one vehicle wheel, the method comprising:

measuring engine speed, thereby facilitating a determination of engine velocity;

measuring the velocity of the first motor;

using the determined engine velocity and the measured velocity of the first motor in a first equation, the first equation including the use of a first velocity relationship mathematically relating the engine velocity and the velocity of the first motor based on the vehicle architecture, the first equation being determinative of whether a mathematical combination of at least the determined engine velocity and the measured velocity of the first motor is within a first predetermined speed range; [[and]]

validating the determined engine velocity and the measured velocity of the first motor when the mathematical combination of at least the determined engine velocity and the measured velocity of the first motor is within the first predetermined speed range; and

communicating at least one of the validated determined engine velocity or the validated measured velocity of the first motor to at least one of the vehicle components.

2. (currently amended) The method of claim 1, further comprising determining vehicle speed and using the determined vehicle speed in at least one additional equation when the mathematical combination of the determined engine velocity and the measured velocity of the first motor is not within the first predetermined speed range.

the at least one additional equation including a second equation determinative of whether a mathematical combination of the measured velocity of the first motor and the determined vehicle speed is within a second predetermined speed range.

3. (original) The method of claim 1, wherein the first velocity relationship is a ratio of the engine velocity to the velocity of the first motor.

4. (canceled)

5. (currently amended) The method of claim [[4]] 2, wherein determining the vehicle speed comprises measuring the speed of each of two vehicle drive wheels and calculating a vehicle speed based on a mathematical average of the two measured speeds.

6. (currently amended) The method of claim 5, further comprising:

calculating the second equation a first time, the determined vehicle speed being given a positive sign in the first calculation of the second equation;

calculating the second equation a second time, the determined vehicle speed being given a negative sign in the second calculation of the second equation; [[and]]

validating the measured velocity of the first motor when each calculation of the second equation indicates that the mathematical combination of the measured velocity of the first motor and the determined vehicle speed is within the second predetermined speed range; and

communicating the validated measured velocity of the first motor to at least one of the vehicle components.

7. (previously presented) The method of claim 6, wherein the at least one additional equation further includes a third equation, the third equation being determinative of whether a mathematical combination of the determined engine velocity and the determined vehicle speed is within a third predetermined speed range.

8. (currently amended) The method of claim 7, further comprising:

calculating the third equation a first time, the determined vehicle speed being given a positive sign in the first calculation of the third equation;

calculating the third equation a second time, the determined vehicle speed being given a negative sign in the second calculation of the third equation; [[and]]

validating the determined engine velocity when each calculation of the third equation indicates that the mathematical combination of the determined engine velocity and the determined vehicle speed is within the third predetermined speed range; and

communicating the validated engine velocity to at least one of the vehicle components.

9. (currently amended) The method of claim 8, the vehicle further including a second motor arranged in the vehicle architecture such that at least one known mathematical relationship exists between the engine velocity and a velocity of the second motor, the second motor being operable to output torque to at least one vehicle wheel, the method further comprising measuring the velocity of the second motor, and wherein the first equation further includes the use of a second velocity relationship mathematically relating the engine velocity and the velocity of the second motor based on the vehicle architecture, the first equation being determinative of whether a mathematical combination of the determined engine velocity, the measured velocity of the first motor, and the measured velocity of the second motor is within the first predetermined speed range; [[and]]

validating the determined engine velocity, the measured velocity of the first motor, and the measured velocity of the second motor when the mathematical combination of the determined engine velocity, the measured velocity of the first motor, and the measured velocity of the second motor is within the first predetermined speed range; and

communicating at least one of the validated determined engine velocity, the validated measured velocity of the first motor, or the validated measured velocity of the second motor to at least one of the vehicle components.

10. (currently amended) A method for validating engine and motor velocities in a vehicle having a plurality of vehicle components, including an engine, a first motor, and a second motor arranged in a vehicle architecture such that at least one known mathematical relationship exists between the engine velocity and each of the velocities of the first and second motors, the engine and the first and second motors each being operable to output torque and at least the engine and the second motor being operable to output torque to at least one vehicle wheel, the method comprising:

measuring engine speed, thereby facilitating a determination of engine velocity;

measuring the velocity of the first motor;

measuring the velocity of the second motor;

mathematically combining the determined engine velocity, the measured velocity of the first motor, and the measured velocity of the second motor to generate a first combined speed term;

comparing the first combined speed term to a first predetermined speed range;

[[and]]

validating the determined engine velocity, the measured velocity of the first motor, and the measured velocity of the second motor when the first combined speed term is within the first predetermined speed range; and

communicating at least one of the validated determined engine velocity, the validated measured velocity of the first motor, or the validated measured velocity of the second motor to at least one of the vehicle components.

11. (previously presented) The method of claim 10, wherein comparing the first combined speed term to the first predetermined speed range is defined by:

$|\omega_E - (R_{E/M1})\ \omega_{M1} - (R_{E/M2})\ \omega_{M2}| \leq K_1$, where ω_E is the engine velocity, ω_{M1} is the velocity of the first motor, ω_{M2} is the velocity of the second motor, $R_{E/M1}$ is a ratio of the engine velocity to the velocity of the first motor, $R_{E/M2}$ is a ratio of the engine velocity to the velocity of the second motor, and K_1 is a first predetermined speed.

12. (currently amended) The method of claim 10, further comprising:

determining vehicle speed;

mathematically combining the measured velocity of the second motor and the determined vehicle speed to generate a second combined speed term;

comparing the second combined speed term to a second predetermined speed range; [[and]]

validating the measured velocity of the second motor when the second combined speed term is within the second combined speed range; and

communicating the validated measured velocity of the second motor to at least one of the vehicle components.

13. (original) The method of claim 12, wherein determining vehicle speed comprises measuring the speed of each of two vehicle drive wheels and calculating a vehicle speed based on a mathematical average of the two measured speeds.

14. (original) The method of claim 12, wherein comparing the second combined speed term to the second predetermined speed range is defined by:

$|\omega_{M2} - (C_1) V_{VEH}| < K_2$, where ω_{M2} is the velocity of the second motor, C_1 is a constant used to change units of vehicle velocity into radians per second, V_{VEH} is the determined vehicle velocity, and K_2 is a second predetermined speed.

15. (previously presented) The method of claim 12, wherein the second combined speed term is generated twice, a first time with the determined vehicle speed being given a positive sign, and a second time with the determined vehicle speed being given a negative sign, and wherein the measured velocity of the second motor is validated only when both of the generated second combined speed terms are within the second predetermined speed range.

16. (currently amended) The method of claim 12, further comprising:

mathematically combining the determined engine velocity, the measured velocity of the first motor, and the determined vehicle speed to generate a third combined speed term;

comparing the third combined speed term to a third predetermined speed range;

[[and]]

validating the determined engine velocity and the measured velocity of the first motor when the third combined speed term is within the third predetermined speed range; and

communicating at least one of the validated determined engine velocity or the validated measured velocity of the first motor to at least one of the vehicle components.

17. (currently amended) The method of claim 16, wherein the third combined speed term is generated twice, a first time with the determined vehicle speed being given a positive sign, and a second time with the determined vehicle speed being given a negative sign, and wherein the determined engine velocity and the measured velocity of the first motor are validated only when both of the generated third combined speed terms are within the third ~~combined~~ predetermined speed range.

18. (original) The method of claim 16, wherein comparing the third combined speed term to the third predetermined speed range is defined by:

$|\omega_E - (R_{E/M1})\,\omega_{M1} - (C_1)\,V_{VEH}| \leq K_3$, where ω_E is the engine velocity, ω_{M1} is the velocity of the first motor, $R_{E/M1}$ is a ratio of the engine velocity to the velocity of the first motor, C_1 is a constant used to change units of vehicle velocity into radians per second, V_{VEH} is the determined vehicle velocity, and K_3 is a third predetermined speed.

19. (previously presented) The method of claim 18, further comprising determining whether the measured engine speed, the measured velocity of the first motor, the measured velocity of the second motor, and the determined vehicle speed are each within a corresponding predetermined range prior to generating any of the combined speed terms.

Claims 20-23 (canceled)